

FURTHER EXPLORATION IN SIND: 1938

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The late Mr. N. G. Majumdar put on the archaeological map of India a large number of chalcolithic sites in Sind including the well-known type-site Amrī in course of exploratory surveys carried out during the years 1927-28, 1929-30 and 1930-31. His last expedition in the western hill-tracts of Sind in 1938, though it was short and ill-fated involving his tragic death, resulted in the important discovery of half-a-dozen new sites, of which Rohel-jo-kund is remarkable as a settlement predominantly of Nāl culture with unmistakable Amrī contacts. The material from this expedition is published and interpreted by the authors, one of whom was attached to the expedition.

THE main aim of the late Mr. N. G. Majumdar in resuming his exploratory activities in Sind in October 1938, after a lapse of seven years, was to trace prehistoric remains and settlements along the foothills of the Khirthār range, which, being the western boundary of the middle portion of the Indus valley, was designed to play an important rôle from the earliest times. The results of his previous expeditions having shown the comparative paucity of early sites in the alluvial plains along the Indus, he had undertaken in 1930-31 a thorough exploration of the hill-tracts of Kohistān, Schwān and the southern portion of the Johi tāluka as far as Pāñḍi Wāhī in the north,¹ bringing to light a long chain of closely-situated settlements, dating from the end of the third millennium B.C. and earlier, in the valleys and on the spurs of the Laki, Bado and Bhit hills. Consequently, when the programme of exploration was revived in 1938, he picked up the thread where he had left it seven years before, and with his characteristic enthusiasm and thoroughness set upon the task of carrying his investigations further northwards in the Johi tāluka among the hills of the Khirthār range and in the adjoining highlands and plains. That he exercised great forethought in planning his programme is revealed by the excellent results achieved in exploring half-a-dozen early sites (fig. 1) in the short space of three weeks. What is more, he was on the track of important discoveries in the region of Rohel-jo-kund, when he was shot dead and some of his assistants injured by dacoits. It is sad that the explorer did not live to write an account of these explorations, to which he alone could have done justice.

Leaving Delhi on the 17th October, 1938, the party reached Johi, the headquarters of the tāluka of the same name, in Dādu District on the 21st. Five days were spent at Johi in making suitable arrangements for riding and pack camels. All available information was at the same time collected from local officials and others about mounds and deserted ruins and about suitable halting places in the course of the exploratory journey through the north-western portion of the tāluka. The arrangements being completed, the expedition left on the 27th morning for Drigh Mathin, which is a fairly large village situated 14 miles north-west of Johi. After a three-hour ride across sandy countryside, with little vegetation except green patches of cultivation along the Johi canal, the first halt was

¹ N. G. Majumdar, 'Explorations in Sind', *Memoirs of Archaeological Survey of India*, no. 48 (Delhi, 1934). The reader will find a useful summary of cultures mentioned in this article in Stuart Piggott, 'The Chronology of Prehistoric North-west India', *Ancient India*, no. 1 (1946), pp. 8-26. Abbreviations used for the references are: *MAI*.—*Memoirs of the Archaeological Survey of India*, *ARASI*.—*Annual Report of the Archaeological Survey of India*.

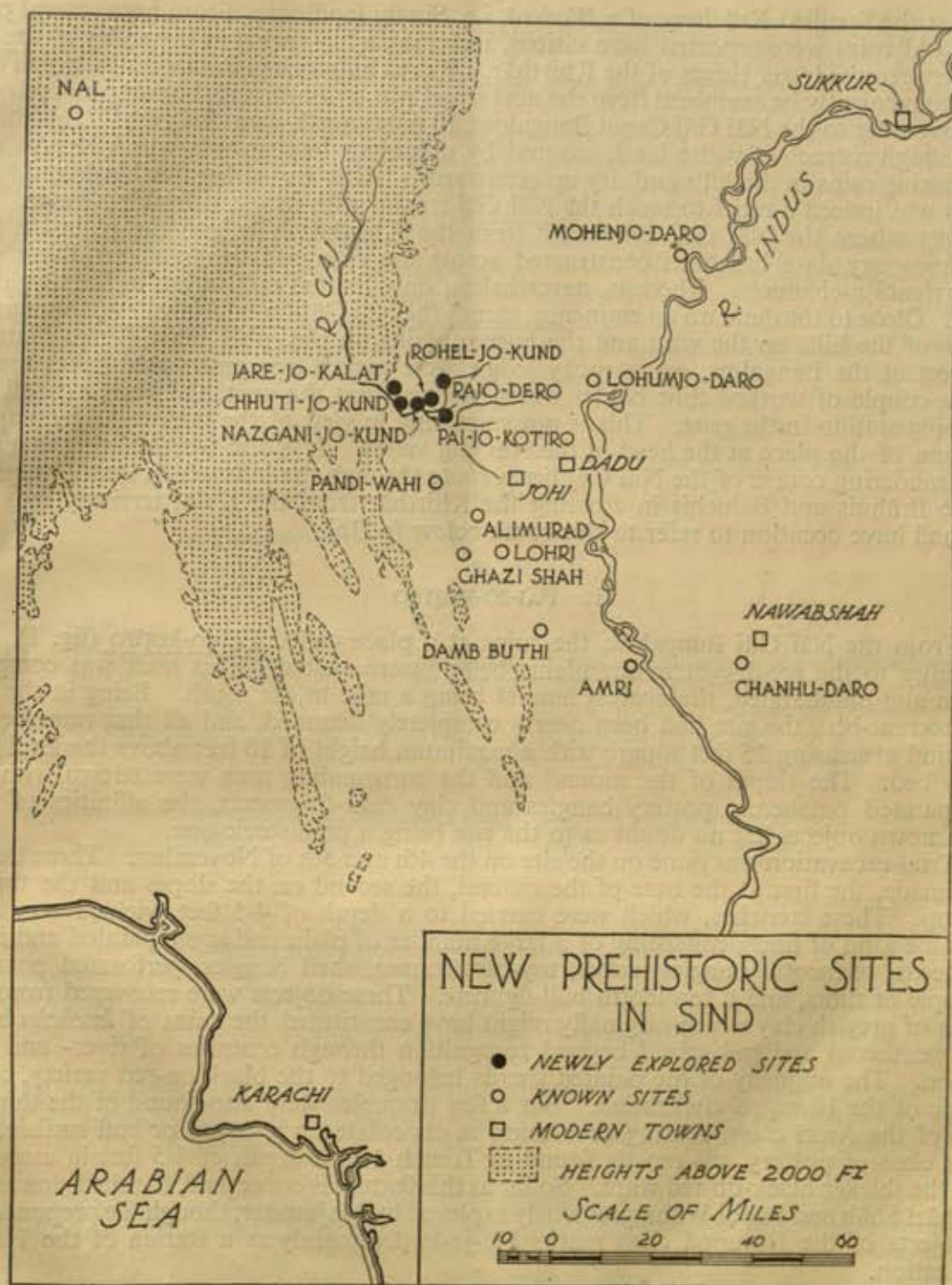


FIG. 1

made at the fortified Kutchery of a *Waderā*, i.e. Sindhi landlord. From here several places where old ruins were reported were visited, including a hill-spring in the valley of the Taki Nāi between the lower ridges of the Khirthār. But as only one prehistoric site, which could more conveniently be examined from the next stage, was encountered, the party moved on the 1st November to the Nāi Gāj Canal Bungalow, 10 miles north-west of Drigh. This journey lay through a tract of waste land, scoured by numerous torrent-beds which receive water only during rains in the hills and dry up afterwards. After traversing this bleak and barren area it was indeed a relief to reach the Nāi Gāj stream with its clear drinking-water.

Just where the Nāi Gāj debouches from the Khirthār hills into the plains, a fairly large masonry dam has been constructed across the river-bed to store and divert water into irrigation-channels. There is, nevertheless, only limited cultivation in the neighbourhood. Close to the dam, on an eminence, stands the Nāi Gāj Canal Bungalow, commanding a view of the hills on the west and the barren plains on the other sides. Immediately to the west of the bungalow, on a rocky ledge, were picked up some waste flakes together with a couple of worked flint blades which showed that the spot had been a small flint-knapping station in the past. This is not surprising in view of the important geographical situation of the place at the head of the Nāi Gāj valley. It is also worth noting that along the meandering course of the Nāi Gāj lies a route through the hills which is still frequented by the Brāhuis and Baluchis in crossing the Khirthār from the Kalāt territory into Sind. We shall have occasion to refer to this route below (p. 16).

1. PĀI-JO-KOṬĪRO

From the Nāi Gāj Bungalow, the ruins at a place called Pāi-jo-koṭīro (fig. 1), about five miles to the south-east in the plains below, were visited. This tract was completely barren and uninhabited, the nearest hamlet being a mile to the south. Being in the midst of a torrent-bed, the site had been nearly completely denuded, and all that remained was a mound measuring 25 feet square with a maximum height of 10 feet above the level of the sandy bed. The slopes of the mound and the surrounding area were strewn with plain and painted potsherds, pottery bangles and clay cake-fragments, the affinities of which with known objects left no doubt as to the site being a prehistoric one.

Trial-excavation was done on the site on the 4th and 5th of November. Three trenches were made, the first at the base of the mound, the second on the slopes and the third on the top. These trenches, which were carried to a depth of 4-5 feet, yielded very nearly the same kind of finds, consisting of a large number of plain and some painted and incised potsherds, terracotta bangles, cakes, toy-cart frames, shell bangles, perforated potsherds, a couple of flints, and a terracotta bull-figurine. These objects were recovered from loose débris of greyish clay which originally might have constituted the ruins of *kuchcha* houses, now weathered and pulverized beyond recognition through centuries of river- and wind-erosion. The majority of the painted sherds belonged to the black-on-red variety, characteristic of the Harappā civilization. But a few examples were also found of the thin, pale ware of the Amrī class, bearing decoration in chocolate on a cream or buff surface. The latter class of pottery was mostly found in Trench 1 at a depth of 4-5 feet in association with the thicker black-on-red ware. So far as this feature is concerned, the site bears analogy to Ghāzī Shāh and Pāṇḍi Wāhī, previously explored by Majumdar, though the preponderance of objects of the Harappā class marks Pāi-jo-koṭīro mainly as a station of the Harappā civilization.

The few examples of Amrian pottery are in the typical ware of tan shades (for the colour-terminology used, see below, p. 17) and are usually buff-slipped, though occasionally plain. When they are decorated, the paint used is brown. PK-13 (pl. I, 4),

the rim of a steep-sided small bowl, shows a panel-filling known from many Amrian sites.¹ A small pot (fig. 2, IV) [PK-3] duplicates the design of pl. III, 39 [RK-135], though it has a red-brown band between the "suspended loop-pattern and the rim-line. Another small fragment bears the design of pl. III, 34 [RK-171]. PK-35 (pl. I, 9) is the base of a small cup or saucer with an irregular design inside. The unusually shallow bowl of pl. I, 1 (=fig. 2, VII) [PK-5], in buff-slipped, beige ware, bears a new Amrian design which is painted in brown with the oblique veins of the leaves in red-brown paint. In addition, there are several buff-slipped pot-fragments, varying from the form of fig. 3, XVII [RK-186] to that of fig. 2, III [PK-4], with rim-diameters of around 2.4 inches.

The remainder of the finds are Harappan. A few of the sherds are red-slipped and rarely burnished, but most of them are plain-surfaced with ware which is closer to beige and tan shades of buff than to light red or tan. Four red-slipped jar-sherds (pl. I, 3 and 5) [PK-19, 40] bear designs, of which three are foliage-patterns, while a bowl (pl. I, 2; fig. 2, VI) [PK-39] has a double wavy line design inside. The rest of the pottery is unpainted or with painted lines only. There are four fragments of large bowls with modelled rims (fig. 2, II, V, VI, VIII) [PK-1, 20, 39, 41].² Only one jar-rim was found (fig. 2, I)

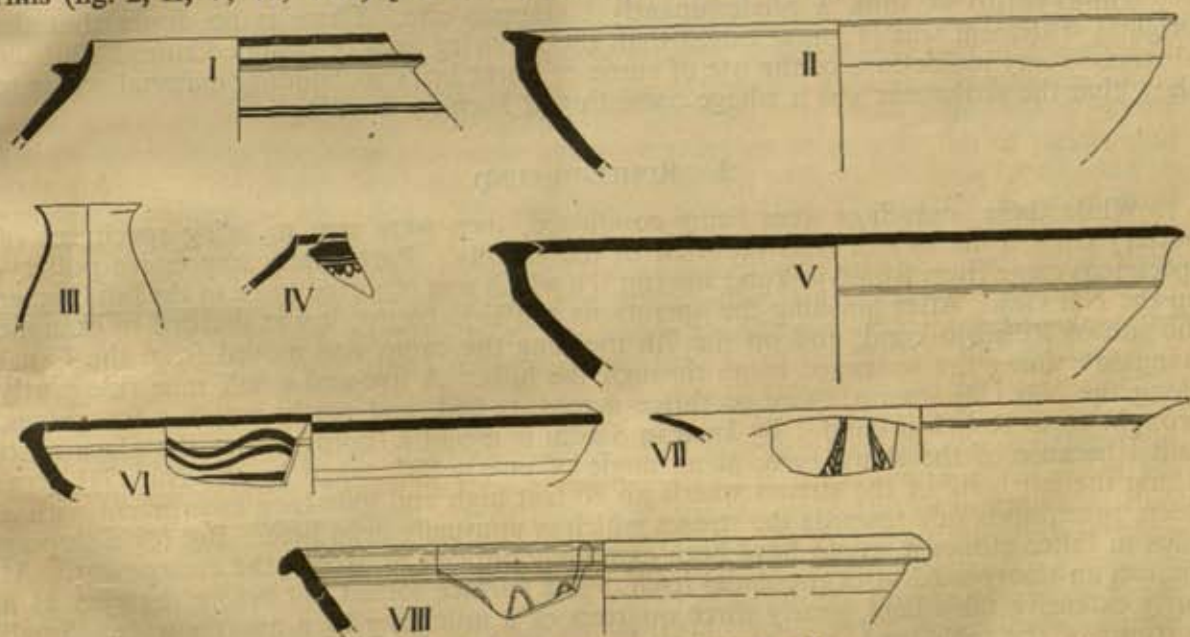


FIG. 2. Pottery from Pāi-jo-kōstro. $\frac{1}{4}$

[PK-29], with a thin, reddish-toned brown wash (probably over a buff slip) outside down to the top of a pair of lines at the lower edge of the fragment. There are a few pieces of small, thin pots of the form of pl. VI, 65 (=fig. 5, XIX) [JK-19] with usually polished,

¹ For an example, see *MASI.*, 48, pl. XXIX, 12, from Bandhni.

² PK-1 is in ware an orange shade of tan with fairly common small brown grits; plain, with unsmoothed surface below the carination outside. PK-20 is of buff ware with some small red-brown grits. It is plain outside with a rough surface below the carination and a brown wash covering the interior and the rim. PK-39 is of orangey-tan ware with a red-brown wash inside and 1.16 inches below the rim outside and a dark-brown painted design inside. PK-41 is of beige ware with a buff slip inside and out and an incised wavy line below three incised horizontal lines inside.

red-brown slips and groups of horizontal, narrow lines. The pot shown on pl. VI, 65 (also fig. 5, XIX) [JK-19] is represented here by four sherds with brown to reddish-brown burnished slips outside above lines on the shoulders and buff slips below. Another series of small pots are in ware coloured beige to buff-tan shades, all with occasional to very common, small to medium red-brown grits, and either plain or with a buff slip outside. They are fairly thick (.2-4 inch) with rim-diameters ranging from 4 to 7 inches. They are characterized by a rough, unsmoothed surface outside below the shoulder, or a combination of this with incised wavy lines on the neck and small shoulder (pl. I, 6 and 8) [PK-27, 16].¹ In addition, there are three plate-stands with incised patterns in the centre of the interior. PK-8 (pl. I, 10) is a low-footed form with radiating dot-lines. The other two examples have the common incised crescent pattern and the same, but incised over concentric circular lines. Fragments of perforated vessels were also found.

Other objects discovered were plain, buff clay bangles with diameters of 2-4.5 inches and circular cross-sections .26-.51 inch thick. One fragment, flat on top and bottom, is decorated with red-brown blobs on the outer edge. Two fragments of toy-cart frames were also found.

Pāi-jo-koṭīro is, thus, a predominantly Harappan site. There is no doubt that the original settlement was of larger extent than the surviving area of denuded ruins. But the absence of any indications of the use of stone or burnt brick as building material serves to show that the settlement was a village consisting of *kuchcha* dwellings.

2. ROHEL-JO-KUNḌ.

While these soundings were being conducted, men were sent to bring specimens of pottery from a number of sites reported in the vicinity. Particularly impressive pottery-specimens came from Rohel-jo-kunḍ site (fig. 1), which was reported to be in the hills higher up the Nāi Gāj. After finishing the operations at Pāi-jo-koṭīro, it was decided to examine the site of Rohel-jo-kunḍ, and on the 7th morning the camp was moved from the Canal Bungalow along the westward route through the hills. A five-and-a-half mile ride partly along the Nāi Gāj stream, twice or thrice across its bed, and partly across a few ridges, brought us to Rohel-jo-kunḍ. By *kunḍ* in Sindhi is meant a 'corner', and the place is so called because of the sharp turn, at an angle of nearly 90°, taken by the Nāi Gāj here. Along the left bank of the stream stands an 80 feet high and mile-long escarpment with a steep, precipitous side towards the stream which is unusually deep here. But for a sloping talus of fallen stones it would have been extremely difficult to ascend the escarpment. At the top an unexpected vista presented itself. The surface spread out before the eyes as a fairly extensive table-land, nearly three quarters of a mile long by a quarter wide. Small portions of the table-land were occupied, here and there, by modern graves and the rest was covered with small, reddish shingle. Towards the western extremity, patches of painted potsherds of the Amrī type were visible on the surface, together with a few waste flint-chips and a worked blade. It was thus evident that the site had been a prehistoric settlement.

The prevalence of the pale ware with bichrome decoration, the total absence of the black-on-red ware on the surface, and the situation of the site on the bank of a perennial hill-stream along a route which, as now, must have been in use in antiquity, invested this site with special importance, and it was decided to do some trial-digging here. With the scanty supply of labour available it was possible to sink only two trenches at selected spots on the 9th and 10th November. In one of the trenches wall-fragments, consisting of two

¹ PK-16 is slipped inside, but outside down over part of the incised area only.

courses of water-worn boulders and being the foundations of two or three small chambers, were encountered. The foundations rested on the solid rock, which was uniformly met with 1½–2 feet below the surface. That these foundations pertained to prehistoric dwellings was clear from the associated find of numerous plain and painted potsherds. The superstructure of the dwellings seems to have been made of some perishable material such as mud. In the other trench, near the edge of the tableland overlooking the stream, no structural remains appeared, though the yield of potsherds, both plain and painted, was again abundant. The finds also included three well-worked flint blades, two of them with secondary flakings. It is significant that not a single object of the Harappā type was found here, and that there was not one specimen of black-on-red ware among the very large amount of pottery excavated.

The pottery-sample now available for study comprises 118 sherds. These are sufficiently alike as regards ware and surface-treatment to be considered one fabric. The pottery is wheel-made and the ware is fine, as far as a megascopic inspection permits us to say.¹ The colour of the fired clay ranges from beige to various shades of red-brown. These tones vary as they are more red, or orange or brown, and are usually of a light, rather than dark, colour. Most of the ware is of these red-brown shades, hereafter called tan for the sake of brevity, but there are a few examples of brown, without the reddish cast, and but two which can be called buff. In general, the clay has fired an even colour throughout, but control of firing was not perfect. There are four cases of grey or blackish ware and fourteen in which there is a difference in colour in the thickness of the body. In these either the core and edges of the wall, or the inner and outer halves, are brown or grey or tan of lighter and darker colour. The reader need not be unduly concerned with the various terms used to describe the colours of the ware. The significant fact is that, though the ware of most Amrian and Nāl pottery is of light-reddish shades, the surface-colour (frequently produced by a slip) is usually of buff, rather than reddish, tones. Some of the sherds show signs of a certain amount of work on the surface, presumably after the vessels were removed from the wheel. This is usually noticeable only in somewhat oblique smoothing marks on the interiors, but in three cases, all on painted vessels (fig. 3, XI, 1; pl. III, 30) [RK-16, 43], the body was scraped outside horizontally leaving vertical ripples in the probably already somewhat dry clay.

On 77 sherds the exterior is covered with a buff slip which occasionally is rather thin. Eight of these also show the slip inside. Overfired vessels may have slips which are rather greyish or drab. Nineteen sherds are of plain-surfaced tan ware and include at least four with Nāl type designs. In addition there are a few plain reddish buff, brown and beige sherds. Besides the buff slip, a dark brown, brown-black, or reddish-brown slip (probably the same as the paint used) in eighteen cases is found covering the surface of certain bowls of the types seen on fig. 3, VII, III, VI [RK-46, 89, 105]. On eight it covers both interior and exterior, where it is sometimes rather smeary and reddish-brown. Of these, two have simple lines drawn inside and one (pl. II, 24) [RK-140] a repeated hook-pattern. In six cases the interior is brown-slipped while the outside is buff-slipped. Three of these are painted with designs (see pls. II, 22 and III, 41) [RK-152, 93]. RK-43 (pl. III, 30) is unique, with a brown slip inside and traces of it below a buff-slipped design zone on the exterior. There are also three undecorated cups (one, fig. 3, VIII) [RK-67], with a brown slip only on the outside. In only two cases is a slip or wash of really reddish colour found, RK-138 (fig. 3, V) where it is orangey-red (but probably within the range of the brown

¹ There are only a few cases of the use of temper. Two of these are sherds of the usual painted type with the designs of pl. III, 34 and 37 (RK-171, 124/125). These and RK-138 (fig. 3, V) all have occasional fine black grits. RK-139 (fig. 4, XXVII) has fairly common, medium to large, black grits.

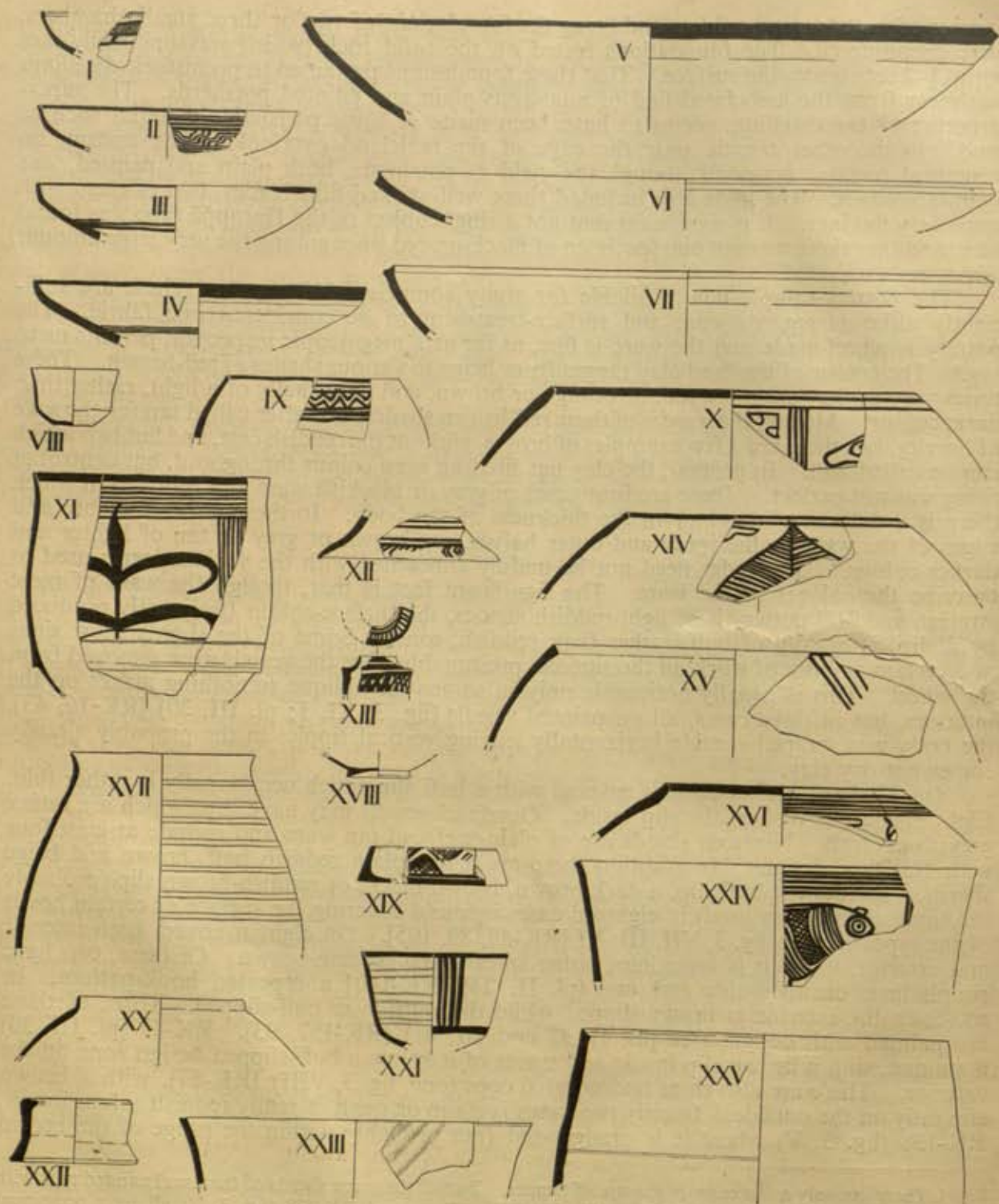


FIG. 3. Pottery from Rohel-jo-kund. ¼

to red-brown slips), and RK-110 (fig. 4, XXVI) where there is a reddish wash inside and probably traces of a buff slip out. RK-7 (fig. 3, XXV) is unique in having a buff slip outside over which is a smeary brown to light red-brown wash.

The number of vessel-forms is not particularly large. There is one type of hole-mouth jar, with probably a rather globular body and fairly thin walls ranging in maximum thickness¹ from .2-.36 inch. There seem to be two different sizes with rim-diameters with ranges of 6-8 and 10-11 inches. The main variation in their form is found in the obliquity of the side and the treatment of the rim, both features being illustrated on fig. 3, XV, XVI, XIV, X [RK-81, 121, 122, 149]. Pl. III, 43 (also fig. 3, IX) [RK-182] shows an exceptionally small example of this type of vessel, while RK-7 (fig. 3, XXV) is unusually steep-sided.

The presence of a few sherds indicates the use of pots of the type of fig. 3, XX [RK-17], as well as good-sized, decorated beakers (fig. 3, XI) [RK-16] with a ledge low down on the body, rim-diameters from 5.5-6.5 inches and thickness of .13-.19 inch.

Bowls of various types seem to have been the commonest form of vessel. Four types may be distinguished: (a) Large bowls with nearly vertical sides and tapering rims with diameters from 9-11 inches. Unusual, squared-off rims are shown on fig. 3, XXIII, XXIV [RK-87, 120]. (b) There are also smaller bowls, with rim-diameters of 4-5.5 inches, rather vertical, slightly everted sides and tapering rims, represented by RK-13,² (fig. 3, XXI) whose slight carination is not exceptional. This type of bowl occasionally occurs with rim-diameters as low as 3.5 inches. Its usual thickness is .16 inch. (c) Shallower bowls in the forms shown on fig. 3, IV, III, I [RK-45, 89, 43] have rim-diameters of 7-9.5 inches and vary in thickness from .2-.28 inch. These generally are covered with brown or brown and buff slips. (d) There are also a few examples of large bowls with slightly modelled rims and brown slips or washes illustrated on fig. 3, VI, V, VII [RK-105, 138, 46].

A few unusual forms may also be noted. Fig. 3, XIII [RK-50] shows a fragment from a miniature canister. Fig. 3, XXII [RK-77] illustrates probably a pot-stand with buff slip outside. RK-67 (fig. 3, VIII) is a miniature cup with a brown slip or wash outside and on the base. RK-113 (fig. 3, XVIII) represents the only ring-base discovered; it shows traces of a buff slip on the outside and base. RK-100 (fig. 3, XIX), of plain, orangey-tan ware, is unique. RK-82 (fig. 3, XII) is probably a ring-foot, though it might be a lid. It has a buff slip on the exterior. RK-110 (fig. 4, XXVI) is of a form new to this



FIG. 4. Sherds from Rohel-jo-kund. $\frac{1}{4}$

area and has been mentioned just above because of the reddish wash inside. Fig. 4, XXVII [RK-139] shows an unusual jar-rim of rather gritty ware with plain orangey-tan surfaces.

Before we consider the designs on the forms just described the type of paint used must be mentioned. With the exception of red-brown paint on RK-135 (pl. III, 39), it is dark-brown to black-brown. With this, in the bichrome examples, is used a red-brown to light red-brown paint. RK-182 (pl. III, 43; fig. 3, IX) is the only specimen showing the use

¹ The thickness taken was always the normal wall-size rather than thickened portions, as sometimes found at the neck or maximum diameter.

² RK-13 is buff-slipped outside only above the carination. Inside it is lightly scored in horizontally well-spaced lines.

of more than two, differently coloured paints. When found it bore yellow, blue-green and brown paint, but the first two have now disappeared. There are five specimens with red-brown horizontal bands below or above the design zone and three in which this red-brown paint was used to fill certain areas in the design. There are only seventeen certain examples of unpainted vessels in this sample.¹ It is to be noted that most of decorated vessels have a brown band painted just inside the rim.

Those familiar with the pottery of Baluchistan and Sind will, on glancing at the illustrated designs, recognize certain patterns distinctive of the Nāl and Amrī cultures, and, in addition, some which may belong to both. The designs will now be described according to this classification, while a little later on we will give the proof for the attributions now made.

The *pīpal*-leaf is found on nine specimens, where observable in a panel, with scalloped right triangle filling the upper corners (pl. II, 11; fig. 3, XIV) [RK-122], or repeated in a zone (pl. II, 13) [RK-136]. In only two cases is the leaf vertically divided as on fig. 5, XVIII [CJK-8]. There are two examples of branches with barred, lentoid leaves (pl. II, 14) [RK-85], the unillustrated specimen with the branch in a panel formed by vertical lines. Outlined circles form the design in six cases, where observable in panels (pl. II, 15) [RK-172], though once repeated (pl. II, 18) [RK-116]. On one specimen the panel with circles alternates with another filled with 'omegas' (pl. II, 12) [RK-146]. Zones of opposed, reversing elements are illustrated by pl. II, 19 [RK-30] (two examples), pl. III, 41 [RK-93] (two examples), and pl. II, 20 [RK-95]. In three cases minor design zones are filled with double zigzags (pl. III, 43) [RK-182], in three with triangles whose apexes do not touch the opposite border (pl. II, 22 and 23) [RK-152, 1], and in one with opposed triangles whose apexes touch the opposite border (pl. II, 21) [RK-19]. Two examples of obliquely-filled panels were found, RK-88 (pl. II, 17) and RK-185 (unillustrated but showing the upper left-hand corner of the panel of pl. V, 54 [RD-75]). Another sherd is decorated with a panel formed by vertical lines with only a scalloped right triangle (see pl. II, 11 and 25) [RK-122, 149] preserved in the upper left corner. Pl. II, 24 [RK-140] shows repeated hooks rising from a line inside a bowl. There are several specimens with animal designs, RK-120 (pl. III, 40), a fish probably with traces of red-brown paint filling the head area, RK-149 (pl. II, 25) and RK-160 (pl. II, 16).

There are only a few sherds with designs which are probably Amrian, RK-135 (pl. III, 39) and probably RK-16 (fig. 3, XI) and RK-49 (pl. III, 26).

The remaining designs may be either of the Amrī or Nāl types or a mixture of the two styles. These include a panelled branch (pl. III, 27) [RK-8/9], loop-designs (pls. II, 22 and III, 28) [RK-152, 115], and several animal-patterns: RK-1 (pl. II, 23), either a bull or a curved-horned animal, with traces of red-brown paint in the leg-shoulder area, RK-150 (pl. III, 29), with red-brown paint filling the area between the two lines of the lower border, and RK-19 (pl. II, 21) and RK-4 (pl. III, 32). There are also three other unidentifiable animal-designs, in two of which large areas or perhaps the whole body is solidly painted. Fish are represented on four sherds, RK-3 (pl. III, 35), RK-43 (pl. III, 30), RK-120 (pl. III, 40) and RK-142 (horizontal inside a bowl and similar to RK-3 with a body pattern of wavy lines behind vertical lines). Occasionally loops (as on pl. VI, 66) [JK-10] and large zigzags are found on jars. Narrow zones are not uncommonly filled with repeated oblique lines (pl. III, 34) [RK-171], vertical lines (fig. 3, XIII) [RK-50], vertical strokes (pl. III, 31) [RK-166], chevrons, either free of the borders (pl. III, 33) [RK-153] or attached to them (fig. 3, XII) [RK-82], reversing oblique line groups (pl. III, 36) [RK-35], a simple zigzag (pl. III, 38) [RK-53], and cross-hatch (fig. 3, XIII) [RK-50], which also occurs in broader zones. Unique are the reversed, opposed, cross-hatched

¹ Mr. Krishna Deva's original notes record that plain and painted sherds were in about equal proportion.

triangles of RK-100 (fig. 3, XIX) and the panel-designs of RK-124/125 (pl. III, 37) and RK-144 (pl. III, 42).¹ Vertical line-groups (fig. 3, XXI) [RK-13], possibly without fill in the panels formed, are also represented.

There are a few flint blades, typically narrow, with triangular or trapezoidal cross-sections. Only a couple of them have intentional retouch on the edges, and in one case a chip has been removed from the bulb of percussion. One horned, miniature (length, 1.2 inches) animal-figurine, without hump, in plain tan clay, has spread-eagled, solid legs.

The pottery-designs which are certainly or most probably the products of Nāl pot-makers are found on 37 of the 75 decorated sherds. The *pīpal*-leaf in panel, with various types of fill-elements in the upper corners (pl. II, 11) [RK-122],² is found fairly commonly on Nāl pottery, while the repeated *pīpal*-leaf (pl. II, 13) [RK-136], with or without fill-motifs at the upper border, occurs sporadically.³ In Baluchistan the *pīpal*-leaf is always divided down the middle (fig. 5, XVIII) [CJK-8], the Sind form thus being a variant of the standard Nāl form. In this respect the branch with barred, lentoid leaves (pl. II, 14) [RK-85] is also a variant. It too occurs at Nāl and other sites,⁴ but usually with the vertical separation of the *pīpal*-leaf. No more distinctive design could have been found than the outlined circle motif of pl. II, 12 [RK-146]. At Nāl this pattern, particularly when alternating with panels filled with 'omegas', is one of the commonest designs.⁵ Zones of elements opposed and reversing from top and bottom borders (pl. II, 19) [RK-30],⁶ pl. III, 41 [RK-93],⁷ pl. II, 20 [RK-95]⁸ are also characteristically Nāl. The double zigzag of pl. III, 43 [RK-182] is typical of minor design zones on Nāl pottery,⁹ but the other two forms of this design (pl. II, 21 and 23) [RK-19, 1] are not. They might be Amrian motifs,¹⁰ but are probably variants of the more usual Nāl design. Obliquely divided panels are another common Nāl design, though usually in the form of pl. II, 17 [RK-88]¹¹ rather than that of pl. V, 54 [RD-75].¹² The hook-design of pl. II, 24 [RK-140]

¹ On RK-144 the area in the panel outlined by curved lines above and to the lower right is filled with red-brown paint.

² This is D-24 of Hargreaves' classification in *MASI*, 35 (Calcutta, 1929), pl. XVII. Only two complete pots with this design were found at Nāl, *ibid.*, Appendix IV, nos. 96, 194, but there are also a dozen sherds with this design in the Nāl collection at the Central Asian Antiquities Museum, New Delhi. It occurs at a good many sites in southern Baluchistan (*MASI*, 43 (Calcutta, 1931), pls. II, Kar. b. 4; XXV, Siaha. 4; XXVI, Nun. 18).

³ This pattern is known from Nāl, *MASI*, 35, pl. XXI, 4; *ARASI*, 1904-5, pl. XXIV, 8, 13 (almost identical with RK-136), and occurs on several sherds in the Nāl collection. So far, it is not certainly represented from other Baluchistan sites.

⁴ Nāl: *MASI*, 35, pl. XVII, 25; *ARASI*, 1904-5, pl. XXIII, 2. Other sites: *MASI*, 43, pls. I, P.H. 2; II, B.R. 1, 2, 15.

⁵ *MASI*, 35, pl. XVII, 36. Thirteen vessels with this design are described in Appendix IV. In the sherd-collection there are around 50 examples of the outlined circles and 40 where these circles alternate with omega-filled panels.

⁶ *Ibid.*, pl. XVII, 18; 3 vessels in Appendix IV, 6 examples in the sherd-collection.

⁷ *Ibid.*, pl. XVII, 19; only one vessel in Appendix IV, but 9 examples in the sherd-collection. See also *MASI*, 43, pls. XXV, Nun. 5; XXXIII, Sun. 1.

⁸ *MASI*, 35, probably included under 17 of pl. XVII; a dozen examples in the sherd-collection.

⁹ *Ibid.*, pl. XVII, 49, with 15 examples described in Appendix IV and some 45 specimens in the sherd-collection.

¹⁰ Compare *MASI*, 48, pls. XXVI, 24 (Ghāzi Shāh) and XXX, 44 (Chauri Landi).

¹¹ The exact form of the design on pl. II, 17 (RK-88) is unsure. It could be either design 26, 28 or 29 of *MASI*, 35, pl. XVII, of which there are seven examples listed in Appendix IV. See also *MASI*, 43, pls. I, T.K. 8; XXV, Nun. 1, 15.

¹² This design is found at several sites, *ibid.*, pl. XX, Ash. 5, Pak. 13; also unpublished examples from several others.

is found on Nāl pottery¹ but is equally frequent with a different ware found by Stein in Las Belā. The specimens from Sind² have, therefore, two possible sources. The animal-designs of pls. II, 16, 25 and III, 40 [RK-160, 149, 120] are in the Nāl style in which the beasts are outlined and certain areas partitioned by lines, the whole probably intended to be filled with various colours.³ In contrast is the animal of pl. II, 23 [RK-1], whose vertical bar-fill and solid middle area suggest a different style, as do similarly the designs of pls. II, 21 and III, 29 and 32 [RK-19, 150 and 4].⁴ The large loops of RK-155 (as pl. VI, 66) [JK-10], though unrepresented in the sherd-collection from the more elevated portions of southern Baluchistan, are found on Nāl pottery. This type of pattern is, however, known elsewhere in Sind,⁵ so it is not certain that it is a Nāl design at this site.

Only a few patterns can be considered surely Amrian. The suspended loop-pattern of pl. III, 39 [RK-135] is frequent in Baluchistan.⁶ However, the shape of the little vessel on which this design is found and its occurrence at most Amrian sites⁷ suggest that it is more apt to be Amrian here than Nāl. The design of pl. II, 22 [RK-152], though not exactly duplicated in the Amrian repertoire, is again more likely to be Amrian than Nāl.⁸ This is also the case with the tree-design of fig. 3, XI and pl. III, 26 [RK-16, 49], which bears no resemblance to known Nāl plant-patterns and may possibly be Amrian.⁹ RK-8/9 (pl. III, 27) cannot certainly be ascribed to either the Amrī or Nāl cultures. The simple, fringed branch has so far been found in neither. The vertical, black-edged, red-brown band flanked by lines may well be a Nāl motif.¹⁰ RK-35¹¹ (pl. III, 36) and RK-144¹² (pl. III, 42) are probably Amrian, since known from other sites in Sind but not on Nāl pottery. Of the four fish-designs, that shown on pl. III, 30 [RK-43] might

¹ In Hargreaves' classification this was included under design 5, bordered chevrons, *MASI.*, 35, pl. XVII, 5. Three examples occur on brown-slipped bowls, listed in Appendix IV as nos. 46, 48, 68. At other sites where it has been found in Baluchistan we cannot be sure whether this design is on Nāl or Las Belā type pottery.

² *MASI.*, 48, pls. XVIII, 27 (Amrī, photo inverted); XXIV, 33, 34 (Lohrī); XXVII, 15, 24 (Ghāzī Shāh); XXVIII, 32, 37 (Pāṇḍi Wāhī).

³ *MASI.*, 35, pls. XVIII, 9; XXI, 8, 14. *MASI.*, 43, pls. XX, Hor. 3; XXI, Zik. 6; XXV, Nun. 7, iv. 12; XXVI, Nun. 17, 20, 21; XXVII, Nun. iv. 1, 2.

⁴ Cf. *MASI.*, 48, pl. XXX, 47 from Tando Rahīm khān.

⁵ *Ibid.*, pls. XXIV, 24 (Lohrī); XXV, 20 and possibly 14 (Damb Būthī); XXX, 41 (Tando Rahīm khān); and unpublished sherds from Pāṇḍi Wāhī, nos. 127, 164.

⁶ As examples the specimens from Siāh-damb, Nundarah on pl. XXV of *MASI.*, 43.

⁷ *MASI.*, 48, pls. XVIII, 3 (Amrī); XXIV, 27 (Lohrī); XXV, 12, 34 (Damb Būthī); XXVIII, 3 (Pāṇḍi Wāhī); and XXX, 11 (Chauro Landi), 16, 18 (Tando Rahīm khān).

⁸ The opposed triangles of the top zone have just been discussed. The filled loop design of the main zone is probably a variant of a pattern found at Amrī (*ibid.*, pl. XVIII, 23) and many other Amrian sites. The closest parallel is found at Chauro Landi (*ibid.*, pl. XXX, 21). The fringe above this zone is usually found inside bowls and rising from a line at Amrī (nos. 207, 370, 447), Chauro Landi (nos. 5, 88), Lohrī (no. 49), Tando Rahīm khān, (no. 49) and is alone illustrated from Damb Būthī (*ibid.*, pl. XXV, 13).

⁹ This inference rests on a sherd from Pāṇḍi Wāhī (no. 5) with solidly-painted, in-curved, tapering-ended leaves identical with RK-49. This sherd may, however, be early Harappan. It is over-fired, with a black core, and has a brownish wash outside and thinly inside. The shape, on the other hand, is the steep, slightly inverted beaker form illustrated on fig. 5, XX (JK-1).

¹⁰ It is very common at Siāh-damb, Nundarah, *MASI.*, 43, pl. XXVII, Nun. iii. 1, v. 1.

¹¹ *MASI.*, 48, pls. XVIII, 1 (Amrī); XXVIII, 23 (Pāṇḍi Wāhī).

¹² This attribution rests on the presence of the same type of panel divider at Damb Būthī (nos. 61, 76), for the rest of the design is unparalleled.

be a Nāl composition.¹ That with the solidly painted head (pl. III, 35) [RK-3] is not in the usual Nāl style,² but there are no examples on Amrian pottery with which it might be compared.

Zones of simple elements, vertical lines, cross-hatch (fig. 3, XIII) [RK-50] and bordered chevrons (fig. 3, XII) [RK-82] are found commonly on the pottery of both cultures. In contrast, the simple zigzag of RK-53 (pl. III, 38) and the oblique bars of RK-171 (pl. III, 34) are known from Nāl sites³ but not in Sind. Repeated vertical strokes (pl. III, 31) [RK-166] and chevrons unattached to the borders (pl. III, 33) [RK-153] may be limited to Amrian pottery.⁴ Despite the present known distribution of these simple motifs, the future may well show them shared by both the Amri and Nāl cultures.

It is not only in designs that the pottery of Rohel-jo-kund shows characteristics of the Nāl and Amri ceramics. The ware, surface-finish,⁵ and paint of both are very similar. The forms also show both Amrian and Nāl types. The large pots and jars (fig. 3, XV, XVI, XIV, X) [RK-81, 121, 122, 149],⁶ the small bowls with erect or slightly inverted or everted rim-sides (fig. 3, XXI) [RK-13],⁷ and the bowl series which usually has brown slips (fig. 3, IV, III, II; fig. 5, III) [RK-45, 89, 93; RD-77]⁸ are all found in Nāl pottery, though the latter two occur with some frequency at Amrian sites. Moderately large, steep-sided bowls with tapering rims (cf. fig. 3, XXIV) [RK-120]⁹ and small pots (fig. 3, XX) [RK-17] both occur in Nāl pottery, but the latter shape¹⁰ is also known in Amrian ceramics. The only certain Amrian vessel-type is that of fig. 3, XVII [RK-186].¹¹ Fig. 3, XI [RK-16] probably shows another Amrian form, but so far it is known from very few sites and one of the examples may be Harappan.¹² Of unusual shapes, fig. 3, XIII [RK-50]

¹ On Nāl pottery fishes' bodies are occasionally cross-hatched, as here (*MASI.*, 35, pl. XX b), though the form of *ibid.*, pl. XVII, 62 is much more typical.

² See *ibid.*, pl. XIX, 4, however.

³ Zigzag: *ibid.*, pl. XVII, 50; *ARASI.*, 1904-5, pl. XXIII, 4. Oblique bars: *ibid.*, pl. XVII, 2, and an unpublished fragment from Awaran Niābat (*MASI.*, 43, p. 129), which is only a small bowl and in shape and design is almost identical with the examples from here.

⁴ Vertical strokes: *MASI.*, 48, pls. XXIV, 26 (Lohri) and XXV, 23 (Damb Būthi). Chevrons: unpublished from Amri (no. 370) and Ghāzi Shāh (no. 327), but known on one example from Baluchistan (*MASI.*, 43, pl. II, B.R. 11).

⁵ Only the polychromy of pl. III, 43 (RK-182) and the slips of pl. III, 30 (RK-43) are distinctively Nāl. The treatment of the latter is the same as on vessel, type 2, of Hargreaves' classification (*MASI.*, 35, pl. XVI, 2 and p. 47), in which the interior and exterior below a ridge is covered with a brown slip, while the design-area above the ridge outside is buff-slipped or plain.

⁶ This is basically the form of type 7, *ibid.*, pl. XVI, which is shown in jar-size in *MASI.*, 43, pls. V, Kar. a. 1, XXV, Nun. 11; XXVI, Nun. 38.

⁷ See *MASI.*, 35, types 3 and 6, pl. XVI. Such bowls do not all have the very flat lower side of the illustrated vessels. The same rim types are also not infrequent in Amrian pottery.

⁸ These are in the range of type 1(a-d) of *ibid.*, pl. XVI, though RK-45 (fig. 3, IV) has a rim less vertical than is usual in this series. This form may share the same origin as the hook design sometimes found in it, so we cannot be certain that the Sind examples: *MASI.*, 48, pls. XXIV, 33, 34 (Lohri); XXV, 28 (Damb Būthi) and unpublished specimens from Amri (nos. 457-59), Chauro Landi (nos. 48, 83), Pāndi Wāhi (nos. 22, 24, 232) and Tando Rahīm Khān (nos. 49, 57), are due to the presence of or influence from the Nāl culture.

⁹ Unpublished so far, but occurring sporadically at several sites.

¹⁰ At Nāl, the smaller sizes of type 2, *MASI.*, 35, pl. XVI. For a published example from Sind, see *MASI.*, 48, pl. XXXVIII, 1 (Amri).

¹¹ *ibid.*, pls. XXV, 34 (Damb Būthi); XXXVIII, 11 (Amri).

¹² Pāndi Wāhi: no. 117 and *ibid.*, pl. XXVIII, 1 and p. 109 (from the Harappan level); Chauro Landi: no. 18; and Kohras Būthi: no. 58 (*ibid.*, pl. XXIX, 31). The design of the last specimen may prove to be of the early Harappan period.

shows a Nāl form,¹ while RK-82 [fig. 3, XII]² and RK-100 [fig. 3, XIX]³ have parallels in Sind.

Before considering what this mixture of Nāl and Amrian pottery signifies, we must examine the chronological position of these remains. No Harappan pottery or other objects were found (above, p. 17) and there seems little doubt that the site is pre-Harappan. The polychrome sherd of pl. III, 43 [RK-182] and the style of painting suggest that the Nāl pottery is from a late stage of this culture. It is closer to the style of Sohr-damb, Nāl than to that of Siāh-damb, Nundarah, which is stylistically and presumably chronologically early.⁴

Rohel-jo-kund is unique among the Sind sites so far discovered in showing a large number and rich variety of motifs peculiar to Nāl pottery, a number of which have been found for the first time east of Baluchistan. Indeed much of the pottery is so characteristically Nāl that it seems reasonable to conclude that we have here a settlement of people from the later stages (see preceding paragraph) of the Nāl culture. Probably they were in contact with or living with people of the Amrī culture. Of this latter fact we cannot be sure. The depth of the deposit was very shallow, and it is possible that it represents a mixture of originally distinct settlements. Evidence from other sites in Sind confirms, however, the likelihood that this Nāl settlement at Rohel-jo-kund was contemporaneous with the Amrī culture.

Nāl pottery has been found in Sind in three different archaeological conditions.⁵ In the first, the remains are surface-finds or from unsure stratigraphic conditions at sites with both Amrian and Harappan remains. These have no bearing on relative chronology, but illustrate Baluchistan-Sind contacts. From the water-logged site of Lohrī was found a sherd with design duplicated at Nāl⁶ only, and another⁷ with the pattern shown on pl. V, 54 [RD-75], but with the interior of the inner circle filled with red-brown paint. At Rājo-ḍero (see p. 25) was found a sherd (pl. V, 54) [RD-75] and a flat-shouldered, miniature canister (RD-42, see below, p. 26) of the form of fig. 3, XIII [RK-50]. Three sherds with *pīpal*-leaf designs as on pl. II, 13, [RK-136] were found at Jare-jo-kalāt (nos. 11-13, below, p. 27). Here may also be mentioned a similar *pīpal*-leaf pattern probably intrusive in Harappan levels at Lohumjo-daro.⁸

The second archaeological condition is the discovery of Nāl and Amrian pottery, as at Rohel-jo-kund, on the surface or at very shallow depths. In this case the chances are good that the two kinds of pottery are contemporaneous, but only because Nāl pottery has been found stratified with Amrian in pre-Harappan layers (see just below). Two Nāl sherds have been found at Damb Būthī. We publish here one (fig. 5, XIV) [DM-1] which in form and design is unmistakably Nāl.⁹ That previously published¹⁰ is of the same form as the

¹ This is a miniature example of type 5, *MASI.*, 35, pl. XVI.

² Possibly no. 233 from Pāṇḍi Wāhī; *MASI.*, 48, pl. XVIII, 13 from Amrī; nos. 17 and perhaps 39 from Bandhni; and no. 10 from Chauro Landi.

³ Amrī, no. 339.

⁴ In agreement with Stuart Piggott, *op. cit.*, p. 16.

⁵ Some of this discussion recapitulates a certain amount of evidence presented by one of the writers in the *Journal of Near Eastern Studies*, V (1946), p. 288, n. 8.

⁶ *MASI.*, 35, pl. XVIII, 12.

⁷ *MASI.*, 48, pl. XXIV, 14 (photograph should be oriented 90° to left).

⁸ *Ibid.*, pl. XXII, 32. Though described with Jhukar pottery, p. 58, note gives the findspot for Lh 178 as Trench I, -2-7', which is the Harappan level. The form of this sherd is that of fig. 3, XXI [RK-13], while the interior of the suspended semicircle at the upper left is painted red-brown.

⁹ *MASI.*, 35, pl. XVI, 5 for the form and pl. XVII, 52 for the design.

¹⁰ *MASI.*, 48, pl. XXV, 1. The design is that of *MASI.*, 35, pl. XVII, 26.

fragment just described and has blue-green paint filling one of the stepped triangles and the bands bordering the design zones. It is the second polychrome Nāl specimen from Sind. In addition there is a crudely-made, small canister¹ clumsily imitating the Nāl form. Several Nāl sherds mixed with Amrian are also known from Tando Rahīm Khān² and Chhuṭi-jo-kund (fig. 5, XVIII) [CJK-8].

At only two sites, Pāṇḍi Wāhī and Ghāzī Shāh, has Nāl pottery been found in stratified relation to Amrian and Harappan remains. At Pāṇḍi Wāhī with Amrian pottery in pre-Harappan levels are found outlined, stepped diamond designs; obliquely divided panels; and probably alternating, opposed, right-triangle patterns.³ The situation at Ghāzī Shāh is different. Here a design inspired by the outlined circle pattern of Nāl is found, from the Amrian up into the Harappan level,⁴ on bowl-forms, which are not Nāl or Amrian shapes, and which are covered with a light red-brown wash which may be burnished, close to the typical Harappan finish. Apparently this design was taken over and used for a time at the beginning of the Harappan period. This inference is reinforced by the similar treatment of another motif⁵ which seems to be characteristic of an early stage of the Kulli culture, but is usually found in Baluchistan on buff-surfaced pottery.

This evidence, limited though it is, all seems to suggest that the appearance of the Nāl culture or imports from it in Sind are contemporary with the Amri culture and are pre-Harappan. Another feature of interest, which is indicated at Ghāzī Shāh, is that in its early stages in this area the Harappan civilization was still in a fluid state and had not crystallized in the patterns which are so characteristic of its mature form.

3. SURFACE-FINDS FROM OTHER SITES

The following section deals with surface-finds from four sites, all lying within a radius of ten miles from Rohel-jo-kund. Of these the first to be considered is Rājo-ḍero (fig. 1) which is situated in the plains about eight miles to the north-east of Rohel-jo-kund. The actual mound is locally known as Wāmānshāh-jo-daro. It is 20 feet high and covers an approximate area of eight acres, now mostly occupied by modern graves, and is reported to have yielded, besides the material noticed here under the site-name Rājo-ḍero, also copper implements in the course of the digging of graves by the local people.

RĀJO-ḌERO is shown by its surface-finds to contain both Amrian and Harappan levels. The Amrian pottery, however, does not seem completely typical. In the small sample of around 50 sherds there is a considerable amount of plain buff ware, and a smaller number with plain, light-tan or more reddish surfaces. There are also some sherds with the usual

¹ *MASI.*, 48, pl. XXV, 33.

² *Ibid.*, pl. XXX, 26, 40, 42 and unpublished fragments of the type of pl. XXX, 40, 42, numbered 20, 42, 45.

³ Stepped diamonds: *ibid.*, pl. XXVIII, 18 and p. 110, from Trench I at plus 3.2', also, unpublished, no. 158. This design occurs on five sherds in the Nāl collection. See also *MASI.*, 43, pls. I, Z.W. 7; XXV, Nun. 9; XXVI, Nun. 28, 32, 33. Obliquely divided panels: *MASI.*, 48, pl. XXVIII, 22 and p. 110, same level as XXVIII, 18, and pl. XXVIII, 8 (form on pl. XXXIX, 13), p. 109, from plus 2' in Trench I. Stepped right-triangles: pl. XXVIII, 17 and p. 110, on plain reddish ware and found between plus .5' and -3.2' in Trench I. Harappan pottery is only found down to plus 8' (pp. 91-92). Note that Trench I is apparently labelled Trench II on the plan, pl. XLV, and that the text uses the top of the mound, plus 21', as datum, while the notes on pp. 109-110 use the ground level, ± 0 , as datum.

⁴ *Ibid.*, p. 81, gives the following sequence (datum the top of the mound); Harappan pottery down to about -30', mixed Harappan and Amrian at -30' to -35', Amrian pottery from -35' to -42'. The design in which we are interested was found at the following depths (given on pp. 98-99): -30', Gs. 166, 235, 163 (pl. XXVII, 47, 52, 53) and Gs. 249; -32', Gs. 200; -35', Gs. 303; -39', Gs. 253-54.

⁵ *Ibid.*, pl. XXVII, 25, 35, 36.

buff slip on the outside. But the bulk is with surfaces of buff or buff-shades, as one expects of Amrian pottery. There are a few bowl-fragments of the forms shown on fig. 3, IV, III; fig. 5, III [RK-45, RK-89; RD-77] with brown slips inside and outside or only partly outside with the rest of the exterior plain or buff-slipped, or only inside while the exterior is plain or buff-slipped.

The pottery-shapes are bowl or small pot-forms. The latter are found in the types seen on fig. 3, XVII [RK-186], fig. 3, XX [RK-17], and fig. 5, XI [RD-15]. Quite possibly the second form had a base like that of RD-56 (fig. 5, VI). RD-69 (pl. IV, 51; also fig. 5, VII) is in this range of shapes and is interesting because of its unusual finish. It is of pale tan ware, with a buff slip outside, but the area below the middle of the fragment is unevenly covered with a beige slip of appreciable thickness which probably contains fine sand (below, p. 30). The bowls have the form of fig. 3, XXI [RK-13] but they may be as large as 8 inches in diameter and have more vertical rim-sides. The types with brown slips have been noted above. RD-49 (fig. 5, I; pl. V, 59) is unusual in its steep side and the presence of a red-brown wash or slip only below the lines inside.¹ To be noted also are a small vessel of the form of fig. 3, XIII [RK-50] with a zone of vertical bars just below the shoulder and a little cup (fig. 5, V) [RD-90] in plain, buff ware.

Among the typical Amrian designs are the vertical lattice of pl. IV, 44 and 45 [RD-9 and 26]; joined, solidly painted small diamonds and triangles (pl. IV, 46 and 47) [RD-18, 17] on small pots; rows of chevrons (pl. V, 57) [RD-32] on bowls of the type of fig. 3, XXI [RK-13]; a zigzag pattern like that of pl. III, 38 [RK-53] on a small pot; plain cross-hatched zones on bowls of the type of fig. 3, XXI [RK-13]; and minute zones of vertical lines (pl. IV, 48) [RD-11]. Unusual designs are shown by pls. IV, 49, 50 and V, 54 and 58 [RD-16, 6/25, 75, 41].² There are two other sherds with horizontal bands of red-brown paint, RD-30, a vertically sided bowl of the type of fig. 3, XXI [RK-13], and RD-28, a miniature hole-mouth pot.

Among the Harappan sherds are a few painted examples. Pl. V, 53 and 55 (also fig. 5, II) [RD-50/82, 45] show an interesting jar-shape (of which there is a third example) with an unusual design on a red burnished slip. The design is not typically Harappan, but there is a little evidence (p. 25) that the designs of the earliest stages of the Harappan civilization were not so limited as in the later, mature phase. Pl. V, 56 (also fig. 5, VIII) [RD-47] shows another peculiar form and a less strange, but nevertheless a typical, design and a polished red slip with a slightly brownish tone. This fragment is also slipped inside, where unburnished. There are a number of fragments of small pots of the form of pl. VI, 65 [JK-19] with red-brown to red slips outside which may be polished. Interesting is fig. 5, X [RD-53] (with a buff surface inside which is polished on the upper half and a polished red slip outside) whose profile is like that of some steep-sided Amrian pots (cf.

¹ It is of orangey-red clay showing some mica, with plain surface which is much scraped outside and shows a hand-finish inside.

² Pl. V, 54 [RD-75]: orangey-tan ware; plain; vertical side with thickness of .28 inch and diameter of approximately 12 inches. The extreme top band may be of red-brown paint. For the Nāl affinities of this design, see p. 24. Pl. IV, 49 [RD-16]: tan ware; buff slip outside; profile of fig. 3, XVII [RK-186] with thickness of .24 inch and rim-diameter 6.3 inches; paint brown and red-brown, the latter filling the central circle in the panel. This design may be connected with the outlined-circle pattern of Nāl pottery. Pl. IV, 50 [RD-6/25]: pale beige ware; buff slip outside; vertical, convex side with thickness of .24 inch and diameter approximately 9.5 inches; paint black-brown and weathered, light reddish-brown in the band forming the lower border of the design-zone. Pl. V, 58 [RD-41]: beige ware; probably plain; bowl rim, concave outward, much like fig. 2, VII [PK-5] but at a 45° angle; thickness .28 inch; paint brown, light red-brown for the oblique lines filling the leaves.

fig. 5, VII; pl. IV, 51) [RD-69]. The large bowl of pl. V, 60 (also fig. 5, IV) [RD-46] is close in shape to the bowls from Rohel-jo-kund of fig. 3, VII, VI [RK-46, 105] and yet is covered inside and out with a burnished red to red-brown slip and has a *pīpal*-leaf scratched on its outer surface. Fig. 5, XII [RD-85] shows another Harappan bowl rim with red polished slip on both surfaces. Two large feet of dish-on-stand (fig. 5, XIII) [RD-72] were also found with red-brown slips on the exterior. A typical jar-stand with a buff slip covering all surfaces is to be seen on fig. 5, IX [RD-71]. Two holes, out of probably four, are preserved.

Among other objects collected is a fragmentary toy-cart frame and a considerable number of fragments of clay bangles, either plain, tan or buff-slipped, with diameters from 4.5 inches and circular cross-sections .48-.64 inch thick. A number of them are painted on the outer edge in brown or red-brown paint with oblique lines, chevrons, or the spirals seen on pl. IV, 52 [RD-2]. Several narrow flint blades were discovered, one with a fine nibbling retouch vertically on both edges, another with the retouch on one edge only.

Though there are only a handful of sherds from CHHUṬI-JO-KUND (fig. 1), which is situated on the Nāi Gāj 4 miles to the west of Rohel-jo-kund, they present much the same picture as that already known from Rohel-jo-kund. The ware is usually buff with plane surfaces, but tan and tannish-buff shades occur with exterior buff slips.

A number of the fragments are from small bowls with nearly vertical rims, but the form of fig. 3, XXI [RK-13] is represented, as are brown-slipped, hemispherical bowls (see fig. 3, III) [RK-89] and a pot-form similar to fig. 3, XIV [RK-122]. There is only one Nāl design, the repeated, divided *pīpal*-leaves of fig. 5, XVIII [CJK-8], on a bowl of the shape of fig. 3, XXI [RK-13]. Pl. VI, 61 [CJK-7] shows a chevron form of the hook design which is inside a hemispherical bowl with dark red-brown slip inside and out as at Nāl. The real hooked form of this design is also found (cf. pl. II, 24) [RK-140]. Amrian designs are seen in zones of vertical lines (in one case two such zones with one of them flanked by red-brown bands of paint), bordered chevrons (fig. 3, XII) [RK-82], and bordered vertical lines with a double wiggle (pl. VI, 64) [CJK-12]. The joined, obliquely barred diamonds of pl. VI, 62 [CJK-3] and the panel-design of pl. VI, 63 [CJK-4] are also characteristically Amrian.

JARE-JO-KALĀT (fig. 1) is situated on the left bank of the Nāi Gāj, about 5 miles up Rohel-jo-kund. It is a plateau, roughly 30 feet high, with occasional indications on the surface of ancient dry-built walls of river-worn boulders and with sherds sparsely scattered over an area, roughly measuring 125 feet square. The plateau is rocky and shows a shallow settlement.

At this site only a few painted sherds were picked up. Three of these are Nāl, with ware as at Rohel-jo-kund, forms similar to that of fig. 3, X [RK-149] and *pīpal*-leaf designs as on pl. II, 13 [RK-136]. Pl. VI, 66 [JK-10] shows a loop-pattern on a bowl with slightly-modelled rim, which is comparable to certain Nāl designs (see p. 22). There is no painted Amrian pottery, with the possible exception of JK-4 which bears the design of pl. III, 34 [RK-171]. Several Amrian vessel forms are, however, represented by the steep-sided, tall pot seen on fig. 5, XX [JK-1] (note the incised mark on the side); the small pot type of fig. 3, XX [RK-17]; a bowl with rim close to that of fig. 3, VI [RK-105]; and a fragmentary beaker side with the ridge of fig. 3, XI [RK-16].¹

¹ This sherd, JK-24, is of tan ware with orange-toned beige surfaces, probably burnished inside. It may, therefore, be Harappan.

The few Harappan fragments include two sherds with foliage-patterns on burnished red and plain brown slips. We may mention also an incised plate-stand, the small pot buff-slipped except for a red-brown wash above two paired lines on the shoulder (pl. VI, 65) [JK-19], and the jar shown on fig. 5, XXI [JK-20] which has a light red-brown wash outside and .72 inch inside, where the side is flat-ribbed.

NAZGĀNI-JO-KUNḌ (fig. 1) is another site situated on the left bank of the Nāi Gāj, about 1 mile up Rohel-jo-kunḌ. Like Jare-jo-kālāt, it is perched on a rocky plateau about 30 feet high, and shows on the surface sherds, sparsely scattered over an area roughly measuring 50 feet square. The occupation here is very shallow and has left no traces of structures on the surface. The Amrian pottery from Nazgāni-jo-kunḌ is with few exceptions in ware of tan shades, with buff slip outside and sometimes also inside.

Two jars of the shape of fig. 5, XVI [Naz-1] were found, but most of the sherds are from bowls of the type shown on fig. 3, XXI [RK-13]. A few fragments are from brown or red-brown slipped bowls. One specimen, with the form of fig. 3, VII [RK-46], has a rim-diameter of 14 inches and thickness of .36 inch, and bears a buff slip inside and outside over a rough, unsmoothed surface. Fig. 5, XVII [Naz-6] shows an unusual base in plain, buff-tan ware with hand-finished surfaces, and is perhaps hand-made. Another fragment has a profile similar to that of fig. 3, XVIII [RK-186].¹ The few painted sherds are decorated with the repeated squiggles of pl. VI, 68 (also fig. 5, XVI) [Naz-1], the lentoid zigzag of pl. VI, 67 [Naz-3],² a bichrome variant of the same pattern [Naz-13],³ and double zigzag patterns as on pl. VI, 69 [Naz-8], in other cases with the fill-triangles attached to the borders. Naz-19 (fig. 5, XV) shows an unusual surface-treatment, grey-brown slip inside and out, except between the lines where it is red-brown, with burnish inside and outside. This and another burnished, brown-slipped fragment, may indicate Harappan influence though no Harappan finds were made at this site.

We take the opportunity afforded by this article to publish a few specimens from the Sind collections which add to our knowledge of Amrian ceramics and Baluchistan-Indus contacts. Pl. VI, 73 (Mar-1), from a site called Mari Khān,⁴ shows a stand⁵ which in design and bichromy is typically Amrian. From this site also comes the bowl or cup shown on pl. VI, 71 [Mar-9]⁶ with fine comb-incision. This same type of incision, which is not as deep as that of the presumably Harappan pots of pl. I, 6 and 8 [PK-27, 16], has also been found at Amrī (pl. VII, 77) [Am-318],⁷ Ghāzi Shāh,⁸ Lohrī (pl. VII, 80) [Lr-228]⁹ and Pāṇḍi Wāhī (pl. VII, 75) [PW-275].¹⁰ From the standpoint of ware, surface-finish, paint and form these fragments are Amrian. But they do not permit us to

¹ Dark red-orange ware; possibly traces of a buff slip outside over a sandy surface with much mica; hand-made.

² On a rim of the form of fig. 3, XVII [RK-186], diameter 4.7 inches.

³ Dark brown and probably light chocolate brown paint, the latter forming the inner lentoid.

⁴ This is in the Johi tāluka and was visited from Lohrī on the 26th December, 1930. Both Amrian and Harappan pottery were collected.

⁵ Buff ware; plain; paint dark brown and chocolate brown. The bottom is also painted with four bands, filled with chocolate brown paint, as on the top.

⁶ Buff ware; plain; brown paint.

⁷ Tan ware; buff slip outside; chocolate brown paint; maximum diameter c. 4.5 inches; form of MASI, 48, pl. XXXVIII, 3.

⁸ Gs-329: light tan ware, probably plain though possible traces of a buff slip outside; on the shoulder of a pot with inverted rim.

⁹ Lr-228; beige ware; whitish-buff slip outside; same form as Am-318. Also Lr-5, 49.

¹⁰ PW-266, 275; both of tan ware with buff slip outside and small pots similar in form to Am-318.

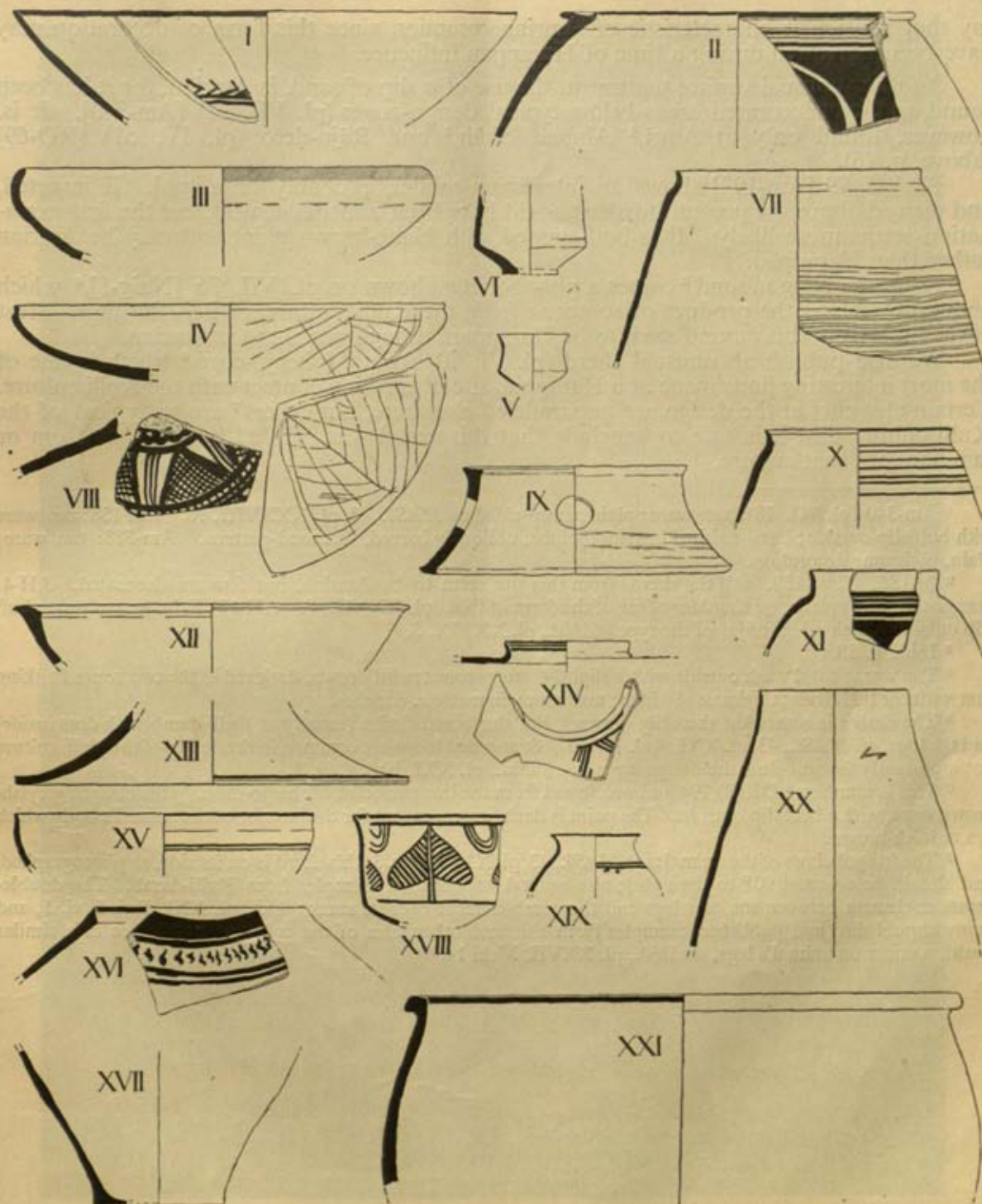


FIG. 5: Pottery from: I-XIII, Rājo-dero; XIV, Damb Bāthī; XV-XVII, Nazgāni-jo-kund; XVIII, Chhuṭi-jo-kund; XIX-XXI, Jare-jo-kalāt. $\frac{1}{4}$

say that incision is characteristic of Amrian ceramics, since this form of decoration may have been borrowed during a time of Harappan influence.

Another unusual surface treatment, the use of a slip of sand, is Amrian, for it has been found on the undecorated areas below typical design-zones (pl. VII, 78) [Am-340]. It is, however, found only at Amri,¹ Ahmad Shāh,² and Rājo-ḍero (pl. IV, 51) [RD-69] (above, p. 26).

Pl. VII, 79 [Am-192] shows an interesting model, probably of a tool. If inverted, and pierced above the present break, it could have been a model chariot, but the first explanation seems more likely. It is buff-slipped with black-brown paint and may be Amrian rather than Harappan.

From the Naig mound³ comes a pot-shoulder shown on pl. VII, 76 [Naig-1],⁴ which unquestionably is the product of someone from the Kulli culture of Baluchistan.⁵ Most of the finds from this mound seem to be Harappan, though one sherd is Amrian.

We also publish an unusual sherd (pl. VI, 70) from Mohenjo-daro⁶ which is one of the most interesting finds made at a Harappan site illustrating contact with the Kulli culture. Certain elements in the design are unparalleled elsewhere, but others⁷ are so typical of the Kulli culture that it is safe to conclude that this vessel was painted by someone from or familiar with that culture.

¹ Am-340 (pl. VII, 78): tan ware; plain; steep-sided as *MASI.*, 48, pl. XXXVIII, 10. Am-138: tan ware with buff slip outside; hand-finished interior; joined, obliquely barred, diamond-pattern. Am-388: tan ware; plain, bichrome decoration.

² *MASI.*, 48, p. 139. All the sherds from this site seem to be Amrian, but few are decorated. AH-4: orange-tan ware; plain; on shoulder of jar of the form of *ibid.*, pl. XXXIX, 8. AH-17: light brown ware; buff slip outside; on shoulder of jar of the type of *ibid.*, pl. XXXIX, 3.

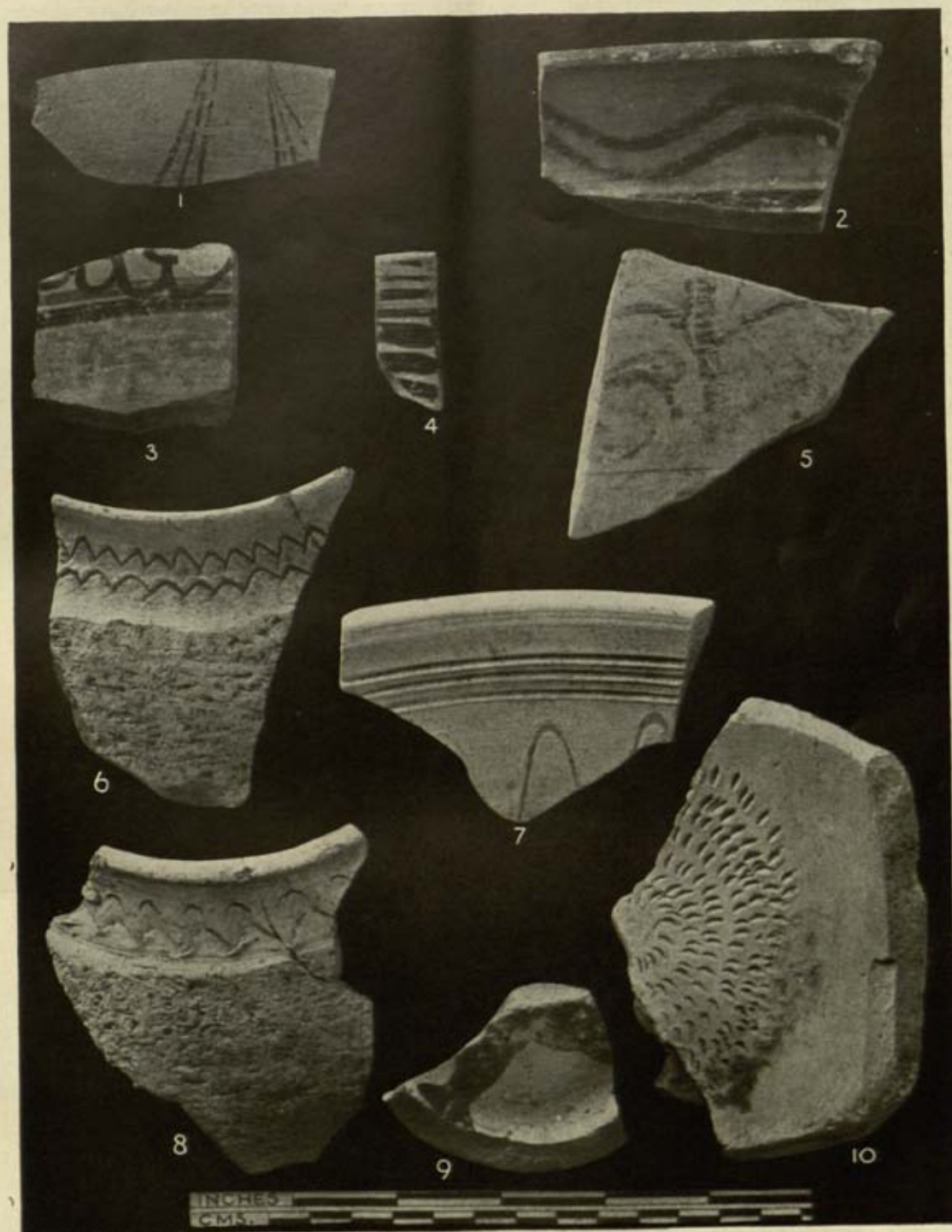
³ *Ibid.*, p. 88.

⁴ Tan ware; hazel wash outside with a slightly orange tone; paint brown, dark red in the two zones flanking that with the little ibex; thickness .16 inch; maximum diameter c. 6 inches.

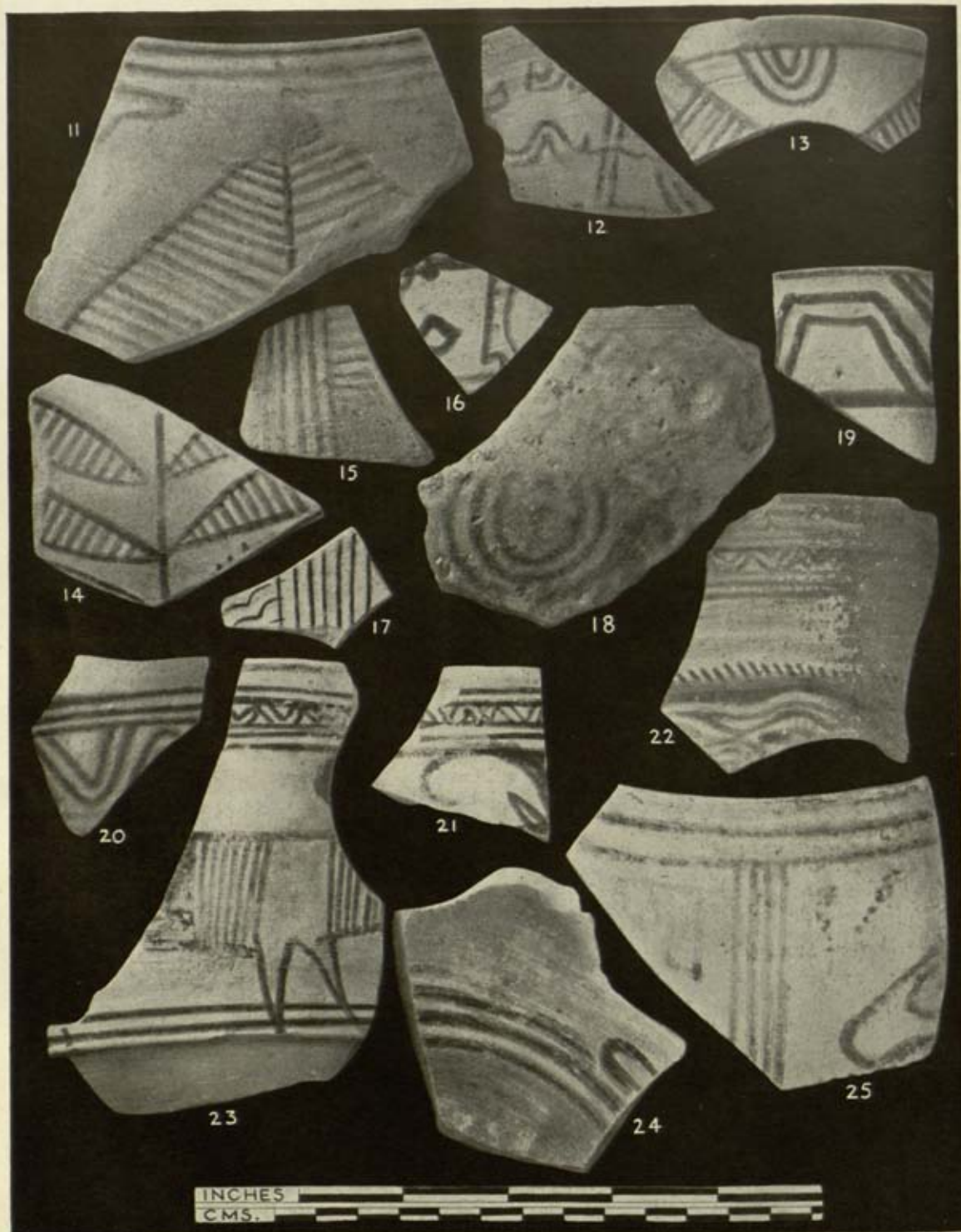
⁵ The design is somewhat sketchily drawn. For the joined circles (usually at Kulli-damb with dots inside) and the ibex, cf. *MASI.*, 43, pl. XXI, Kul. I. iv. 3. Suspended loops are common in the design of the Kulli culture but are usually found below the design zone as on *ibid.*, pl. XXI, Kul. I. iv. 1.

⁶ This is numbered DK(B) 794 and was found from the late period at Mohenjo-daro. It is of light greyish-brown ware, with a buff slip outside. The paint is dark brown, except for the interior of the animal's body which is a reddish-brown.

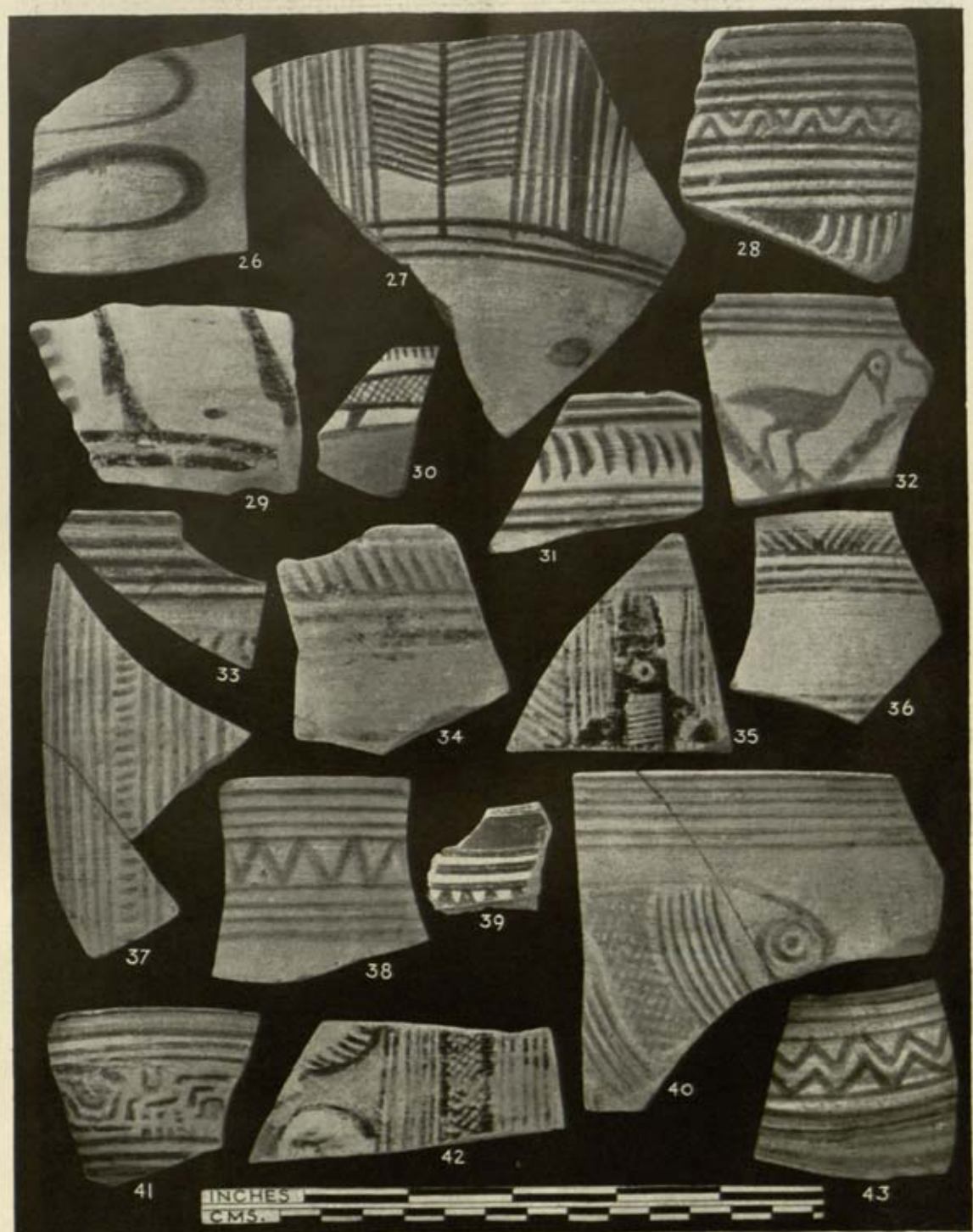
⁷ The fringed claws of the animal: see *MASI.*, 43, pl. XXIV, Baz. 3 (this sherd is on its side, as photographed, and should be oriented 90° to the right); also several unpublished examples from Kulli-damb. The double-meander element between the rear legs and the comb-element over its rump: *ibid.*, pl. XXI, Kul. I. vi. 1, and many unpublished and published examples from this and other sites of the culture. For a tree in a similar position under an animal's legs, see *ibid.*, pl. XXVII, Mehi 14.



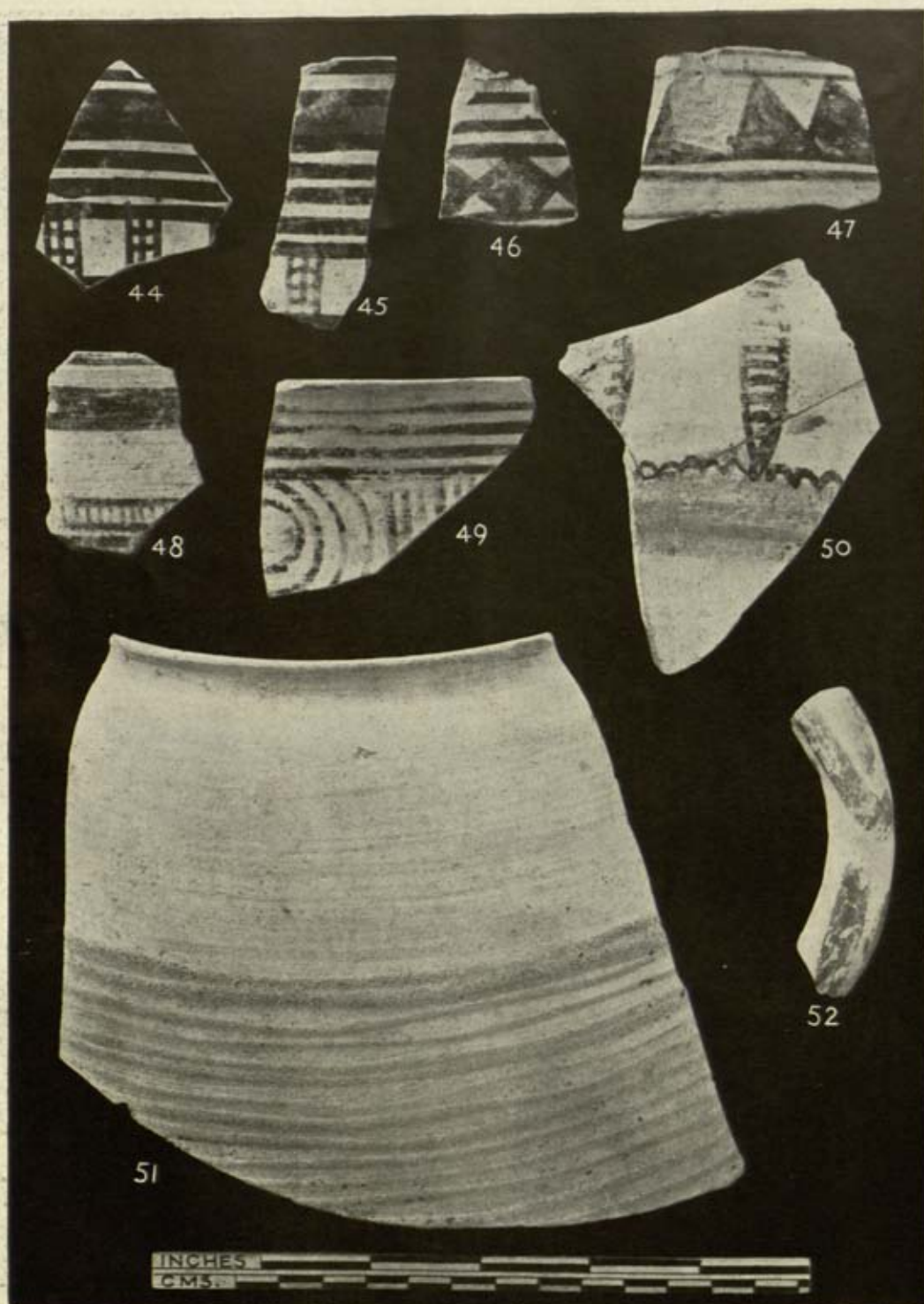
Pottery from Pāi-jo-kojūro



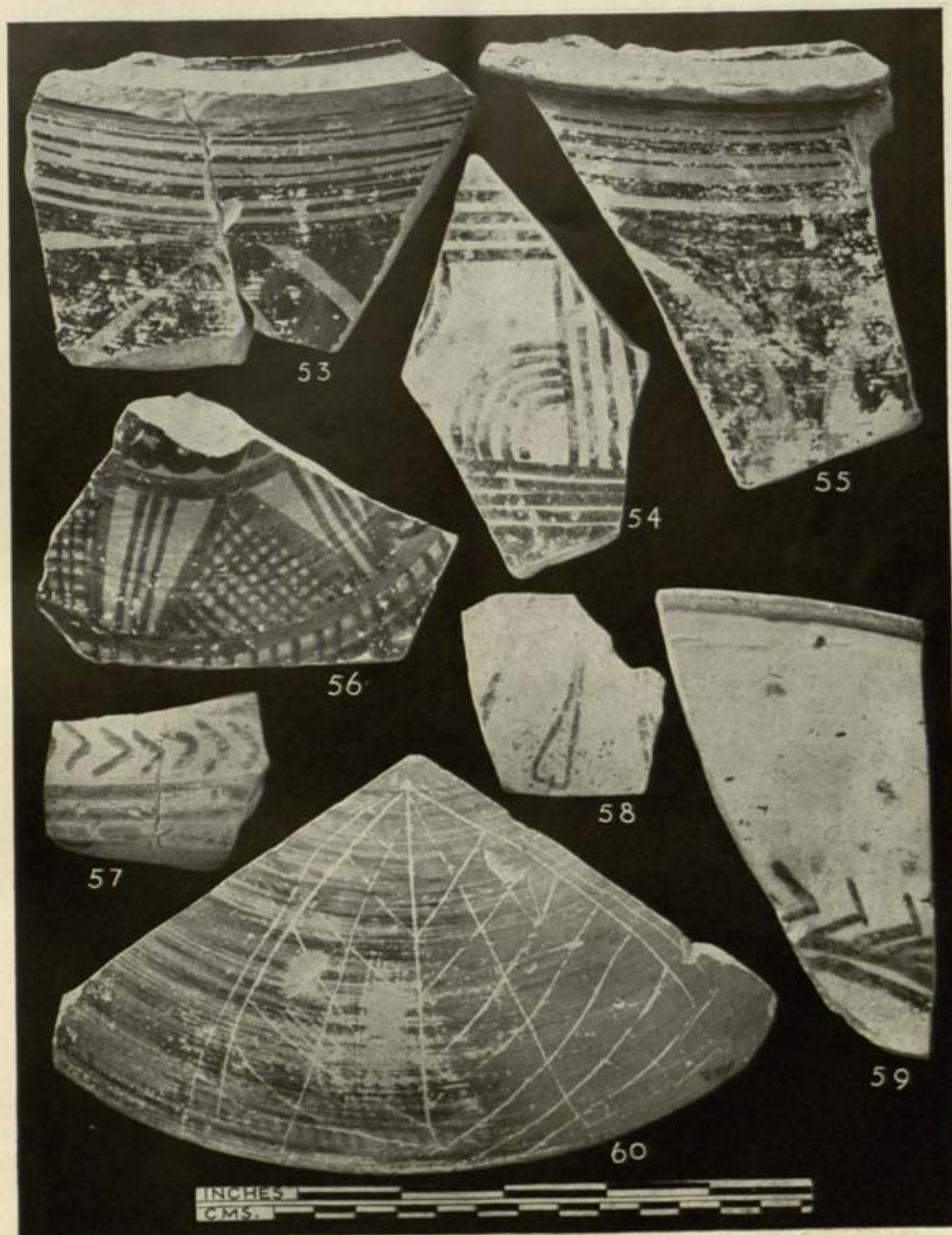
Pottery from Rohel-jo-kund



Pottery from Rohel-jo-kund



Pottery from Rājo-ḡero



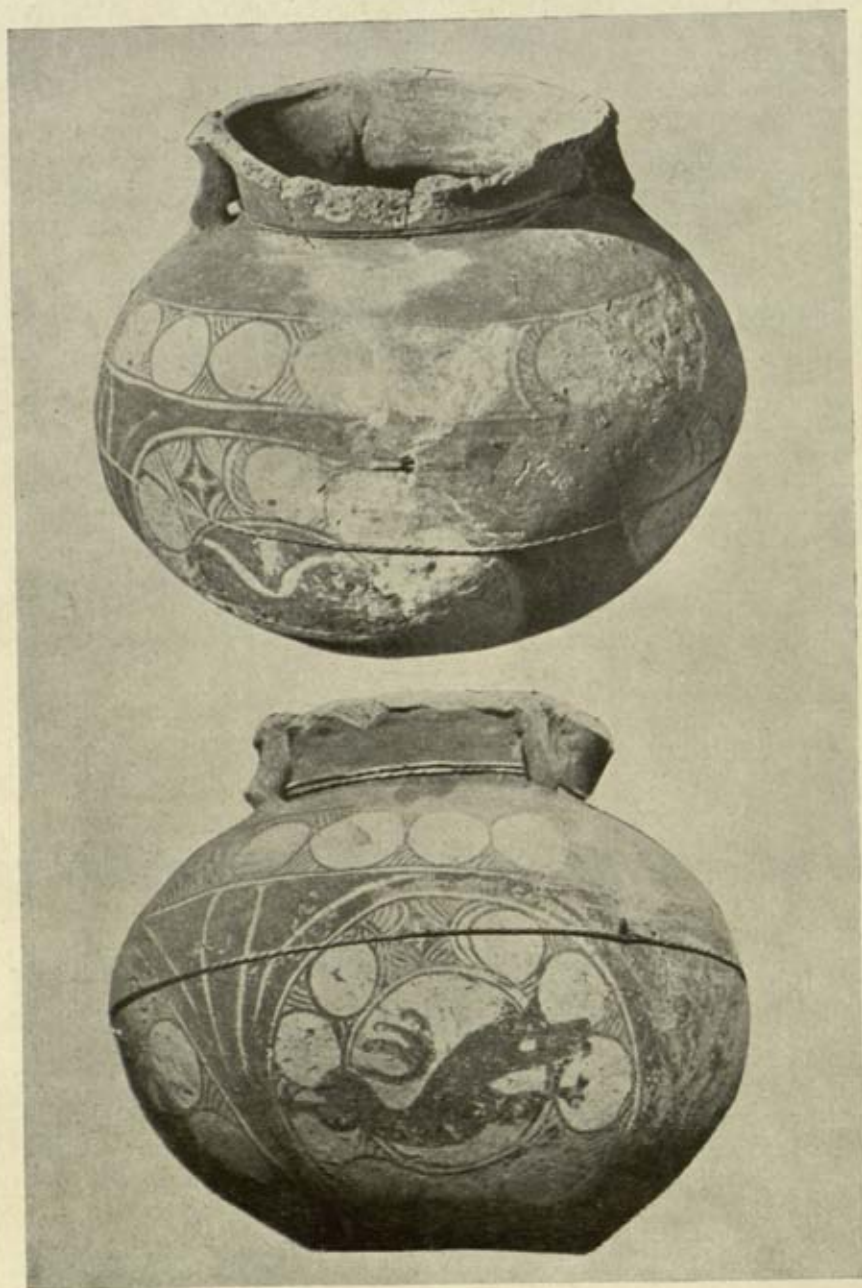
Pottery from Rājo-ḡero



61-64, pottery from Chhuṭi-jo-kunḍ; 65-66, pottery from Jare-jo-kalāt; 67-69, pottery from Nazgāni-jo-kunḍ; 70, pottery from Mohenjo-daro; 71-73, pottery from Mari Khān



74-75, pottery from Pāṇḍi Wāhī; 76, pottery from Naig; 77-79, pottery from Amrī; 80, pottery from Lohrī



*Pot with painted ornament, probably found near Quetta (Lahore Museum).
Ht. 11 inches. (Photo: Lahore Museum)*